

U.S. Patent Application Serial No. 10/588,717
Amendment filed December 18, 2008
Reply to OA dated October 2, 2008

AMENDMENTS TO THE CLAIMS:

Please cancel claims 3-6 without prejudice or disclaimer, amend claim 1, and add new claim 14, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A photocurable resin composition for forming an optical waveguide, the composition comprising:

(A) a carboxy-containing unsaturated polyurethane resin obtained by reacting a polyisocyanate compound (a), a carboxy-containing polyol (b) and a hydroxy-containing unsaturated compound (c);
and

(B) a solvent;

the hydroxy-containing unsaturated compound (c) being an unsaturated compound (c-2) having one hydroxy group and at least two unsaturated groups per molecule.

Claim 2 (Original): The photocurable resin composition according to claim 1, wherein the polyisocyanate compound (a) is an aromatic diisocyanate.

Claims 3-6 (Canceled).

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Claim 7 (Original): The photocurable resin composition according to claim 1, wherein the carboxy-containing unsaturated polyurethane resin (A) is a resin obtained by reacting a polyisocyanate compound (a), a carboxy-containing polyol (b), a hydroxy-containing unsaturated compound (c), and a polyol (d) other than the polyol (b).

Claim 8 (Original): The photocurable resin composition according to claim 7, wherein the polyol (d) is an aromatic polyol.

Claim 9 (Original): The photocurable resin composition according to claim 1, further comprising a radical photopolymerization initiator.

Claim 10 (Original): A photocurable dry film for forming an optical waveguide, which is formed using the photocurable resin composition according to claim 1.

Claim 11 (Original): The photocurable dry film according to claim 10, which has a softening temperature within a range of 0°C to 300°C.

Claim 12 (Original): An optical waveguide comprising a lower cladding layer (I), a core (II) and an upper cladding layer (III), wherein at least one of (I), (II) and (III) is formed using the photocurable resin composition according to claim 1.

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Claim 13 (Original): An optical waveguide comprising a lower cladding layer (I), a core (II) and an upper cladding layer (III), wherein at least one of (I), (II) and (III) is formed using the photocurable dry film according to claim 10.

Claim 14 (New): The photocurable resin composition according to claim 1, wherein the unsaturated compound (c-2) is at least one member selected from the group consisting of glycerol di(meth)acrylate, diglycerol tri(meth)acrylate, trimethylolpropane di(meth)acrylate, pentaerythritol tri(meth)acrylate, and dipentaerythritol penta(meth)acrylate.